

Date: Friday, 21/11/2008 1:29:36 PM
User: Linda Lacelle

Process Sheet

| | |
|---|--|
| Customer : CU-DAR001 Dart Helicopters Services | Drawing Name : AFT MAINTENACE STEP |
| Job Number : 43692 | |
| Estimate Number : 12455 | |
| P.O. Number : | Part Number : D350591133UP |
| This Issue : 21/11/2008 S.O. No. : | Drawing Number : D2946 REV B |
| Prsht Rev. : NC | Project Number : N/A |
| First Issue : / / Type : LARGE FAB ASSY | Drawing Revision : REV. B |
| Previous Run : 42720 | Material : |
| Written By : | Due Date : 05/01/2009 Qty: 2 Um: Each |
| Checked & Approved By : | |
| Comment : Est Rev:B 05.10.14 Modified step 10 KJ/EC Est Rev:B 06.07.19 D2946 @ rev.b EC | |

Additional Product

Job Number:



| | | |
|----------------|------------------------------|----------------------|
| Seq. #: | Machine Or Operation: | Description : |
|----------------|------------------------------|----------------------|

| | | |
|-----|----|------------------|
| 1.0 | DC | DOCUMENT CONTROL |
|-----|----|------------------|



HJ for JLD 08.12.08

**Comment:** DOCUMENT CONTROL

Photocopy bluefile and type labels as per PPP D350-591-133 CHG002

S 08/12/11

| | | |
|-----|-----------|----------------|
| 2.0 | D2622120C | Step Extrusion |
|-----|-----------|----------------|

**Comment:** Qty.: 1.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part Number

Description Batch

1 D2622-120C

Extrusion

B39316 (1)

42155 (1)

SAD 08-11-27

| | | |
|-----|-------------|------------------------------|
| 3.0 | LARGE FAB 1 | LARGE FABRICATION RESOURCE 1 |
|-----|-------------|------------------------------|

**Comment:** LARGE FABRICATION RESOURCE 1

1-Cut D2622-120 extrusion to 62.06" long as per Dwg D2946

2-Deburr

Ensure that 57.09" minimum extrusion is kept and identify to be used for D350-591-215/-216.

SAD 08-11-27 (1)

| | | |
|-----|-----|------------------------------|
| 4.0 | QC5 | INSPECT WORK TO CURRENT STEP |
|-----|-----|------------------------------|

**Comment:** INSPECT WORK TO CURRENT STEP

S 08/12/11 (12)

| | | |
|-----|-------|----------------|
| 5.0 | D2734 | Step End Plate |
|-----|-------|----------------|

**Comment:** Qty.: 2.0000 Each(s)/Unit Total: 4.0000 Each(s)

Pick:

Qty Part Number

Description Batch

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT MAINTENACE STEP

Job Number: 43692

Part Number: D350591133UP

Job Number:



Seq. #:

Machine Or Operation:

Description :

2 D2734

End Plate B 39179

SP 08.12.03 (2X)

6.0

D2944

Step Mounting Plate



Comment: Qty.: 2.0000 Each(s)/Unit Total: 4.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 D2944 Support B 36405

SP 08.12.03 (2X)

7.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Deburr and Bevel ends for welding

2-Weld (1) End Cap and (2) Lugs using Jig DT8440 as per Dwg D2946

A/R Aluminum Rod M 109213

M 104855

3-Grind End Cap welds flush

SP 08.12.03 (2X)

SP 08-12-02 (2X)

8.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

SP 08-12-04 (2X)

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SP 08/12/04 (2X)

10.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

M- 08/12/05 (2X)

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

08-12-02 (2X)

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
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NOTE: Date & initial all entries

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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT MAINTENACE STEP

Job Number: 43692

Part Number: D350591133UP

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Remove alodine prior to welding. Weld end cap as per Dwg D2946. Grind end cap weld flush.

A/R AL ROD BATCH: M 104855

Grind => SAP 08-12-08

SP 08-12-08

13.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

Op 08-12-08

RF 08-12-08 (2x)

14.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Soslab 08

15.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Touch Up Chemical conversion

DO NOT PAINT

DO NOT APPLY WING WALK

JS

08-12-10 (2x)

16.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: Inspect Powder Coat and Wing Walk

M-L

08/12/10

17.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

18.0

D22301

Lug



Comment: Qty.: 4.0000 Each(s)/Unit Total: 8.0000 Each(s)

Mounting Lug

Batch: 41819

JS 08/12/11 (2x)

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
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Date: Friday, 21/11/2008 1:29:37 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT MAINTENACE STEP

Job Number: 43692

Part Number: D350591133UP

Job Number:



Seq. #:

Machine Or Operation:

Description :

19.0

D22303

Lug



B42316

8/12/11 SQ



Comment: Qty.: 4.0000 Each(s)/Unit Total: 8.0000 Each(s)

Mounting Lug

Batch:

B42316 x 4

Batch Noting

SS 08/12/11 (x2)

20.0

D2856400

Abrasion Strip



Comment: Qty.: 1.2606 f(s)/Unit Total: 2.5213 f(s)

Abrasion Strip 7.20" long x2

Batch:

42076

SS 08/12/11 (x2)

21.0

D2945

Step Mounting Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total: 2.0000 Each(s)

Step Mounting Plate

Batch:

35690

SS 08/12/11 (x2)

22.0

AN47A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total: 4.0000 Each(s)

Bolt

Batch:

M108077

SS 08/12/11 (x2)

23.0

AN411A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total: 8.0000 Each(s)

Bolt

Batch:

M106605

SS 08/12/11 (x2)

24.0

AN414A

Bolt



Comment: Qty.: 8.0000 Each(s)/Unit Total: 16.0000 Each(s)

Bolt

Batch:

M107534

SS 08/12/11 (x2)

25.0

AN960JD416

Washer



Comment: Qty.: 14.0000 Each(s)/Unit Total: 28.0000 Each(s)

Washer

Batch:

M109249

SS 08/12/11 (x2)

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Job Number: 43692

Part Number: D350591133UP

Job Number:



Seq. #:

Machine Or Operation:

Description :

26.0

MS21042L4

Nut



Comment: Qty.: 14.0000 Each(s)/Unit Total: 28.0000 Each(s)

Nut

Batch: M108145

SS 08/12/11 (X2)

27.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

SS 08/12/11 (X2)

28.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D350-591-213

Location:

PPP Rev:

Rev B

SS 08/12/11 (X2)

29.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/12/15

Job Completion



MF 08-12-12

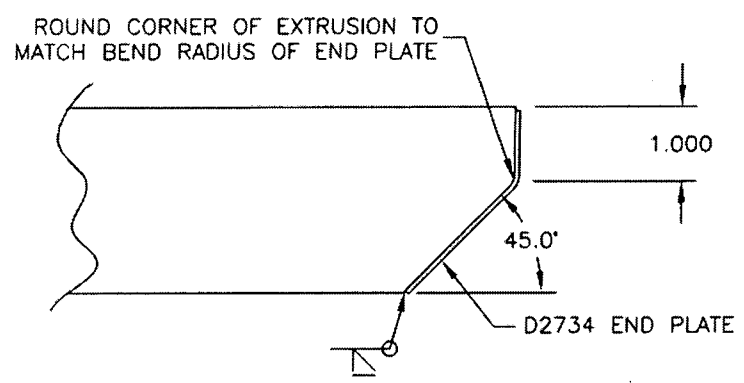
DART

D2946 STEP ASSEMBLY PARTS LIST

| Part No. | Description | QTY |
|----------|---------------------|-----|
| D2946 | Step Assembly | X |
| D2622-63 | STEP EXTRUSION* | 1 |
| D2734 | END PLATE | 2 |
| D2944 | STEP MOUNTING PLATE | 2 |

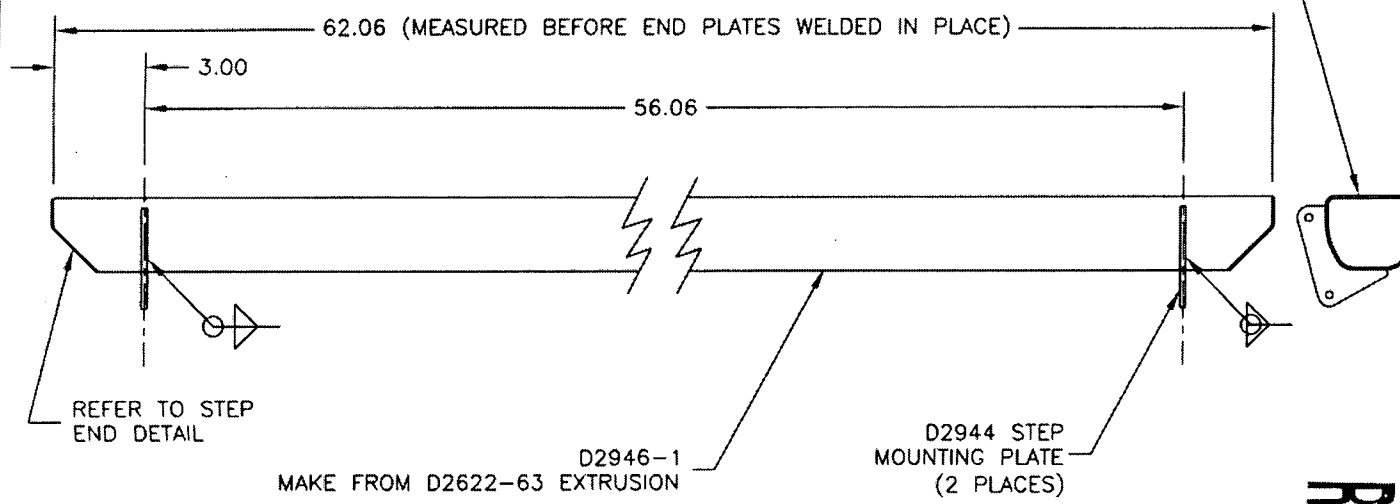
*cut per drawing

NOTE: ALL WELDS SHALL BE
100% VISUALLY
INSPECTED BY A
QUALIFIED INSPECTOR
PER DART QSI 004



TYPICAL STEP END DETAIL
NOT TO SCALE

APPLY BLACK ANTI-SKID
ON TOP SURFACE TO
BOTTOM OF TOP RADIUS



D2946-041 STEP ASSEMBLY

D2946 STEP ASSEMBLY

- 1) MAKE FROM D2622 STEP EXTRUSION
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT ENTIRE ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

| DESIGN | DRAWN BY | DART AEROSPACE LTD | REV. B |
|----------|----------|-----------------------------|--------------|
| CP | PH | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | APPROVED | DRAWING NO. | SHEET 1 OF 1 |
| 05.11.14 | 05.11.14 | D2946 | |
| DATE | | TITLE | SCALE |
| 05.11.14 | | STEP ASSEMBLY | 1:6 |
| A | 99.12.13 | NEW ISSUE | |
| B | 05.11.14 | UPDATE FINISHING NOTE | |

RELEASED
05.11.28

43692